

APPENDIX I

GLOSSARY

A-END— hydraulic pump that controls the output of the B-end through a valve plate and a constant speed motor.

AAW— Anti-air warfare.

ASUW— Anti-surface warfare.

ASW— Anti-submarine warfare.

AUR— All up round.

B-END— Converts fluid power from the A-end into a rotary mechanical motion.

BASE— The after end of the projectile.

BENCH MARKS— Installed for each equipment that has an alignment telescope and used throughout the life of the ship to verify alignment.

BICONVEX— A supersonic fin shape that causes considerable drag but is the strongest fin design.

BITE— Built-in test equipment.

BODY— The main part of the projectile and contains the greatest mass of metal.

BOURRELET— The smooth machined area that acts as a bearing to stabilize the projectile during its travel through the gun bore.

C&D— Command and Decision.

CAB UNIT— An A-end and B-end combination.

CCS— Central control station, same as Damage Control Central (DCC) on some ships.

CENTER-LINE REFERENCE MARKS— Established during initial construction to represent the ship's center line.

CENTER-LINE REFERENCE PLANE (CRP)— The reference used to establish the train zero alignment of all of the combat system equipment aboard ships.

CIC— Command information center.

CONREP— Connected replenishment between ships.

CONTROL SURFACE— Provides the necessary steering corrections to keep the missile in proper flight attitude and trajectory.

CONTROL SYSTEM— Responds to orders from the guidance system and steers the missile toward the target.

CONTROLLED AREA— A security area that surrounds an exclusion area.

CORRECTIVE MAINTENANCE— The replacement of components that are identified as worn, defective, or broken.

COSAL— An established shipboard allowance of parts for installed equipment.

CROSS WIND— The wind that blows at the right of the LOF.

CSMP— Current ships' maintenance project.

CYCLIC RATE OF FIRE— The maximum rate at which a weapon will fire in automatic operation, stated in rounds per minute.

DCC— Damage control central, same as Central Control Station (CCS) on some ships.

DEAD TIME— The time interval between the instant the fuze is set and the instant the projectile is fired.

DETONATORS— A device used in initiating high-explosive bursting charges.

DoD— Department of Defense.

DORSAL FIN— The stationary fin provided for in-flight stability and some lift.

DoT— Department of Transportation.

DOUBLE WEDGE— A supersonic fin shape that offers the least drag but lacks strength.

DRAG— The resistance offered by the air to the passage of the missile through it.

DTRM— Dual thrust rocket motor made of a solid-fuel propellant.

DUD-JETTISON UNIT— Ejects missiles overboard that fail to fire and are unsafe to return to the magazine.

EFFECTIVE CASUALTY RADIUS— The radius of a circular area around the point of detonation within which at least 50 percent of the exposed personnel will become casualties.

ELECTRICAL ZERO— The reference point for alignment of all synchro units.

ESCU— Electronic servo control unit.

ESI— Explosive safety inspection.

ESM— Electronic support measures.

EW— Electronic warfare.

EXCLUSION AREA— A security area that contains one or more nuclear weapons or one or more components of a nuclear weapon.

EXPLOSION— The practically instantaneous and violent release of energy which results from a sudden chemical change of a solid or liquid substance into gases.

EXPLOSIVES— Those substances or mixtures of substances that when suitably initiated by flame, spark, heat, electricity, friction, impact, or similar means, undergo rapid chemical reactions resulting in the rapid release of energy.

EXUDATE— A mixture of lower melting isomers of TNT, nitrocompounds of toluene of lower nitration, and possible nitrocompounds of other aromatic hydrocarbons and alcohols.

FCS— Fire control system.

FIXED AMMUNITION— Ammunition that has the cartridge case crimped around the base of the projectile.

FLASH POINT— The temperature in which lubricants give off a vapor.

FOD— Foreign object damage.

FUZES— The initiating device that detonates the warhead (payload).

GCP— Gun control panel.

GMLS— Guided missile launching system.

GMTR— Guided missile training round.

GUIDANCE SYSTEM— Keeps the missile on its proper flight path.

HERO— Hazards of Electromagnetic Radiation to Ordnance.

HIGH-PRESSURE (HP) AIR— Pneumatic air pressure ranging from 3,000 to 5,000 psi.

HSD— Heat sensing devices that are used in detection of slow or fast rise in temperature for automatic activation of magazine sprinkler systems.

HYDROSCOPIC— Explosives that easily absorb moisture.

ICS— Integrated control station.

IFF— Identification friend or foe.

INITIAL VELOCITY (IV)— The speed at which a projectile is traveling at the instant it leaves the gun bore.

IPB— Illustrated parts breakdown is a publication that describes and illustrates all the components used in ordnance equipment.

LED— Light-emitting diode.

LIFT— The upward force that supports the missile in flight.

LOF— Line of fire is used to position the gun bore with respect to the LOS.

LOS— Line of sight is used to establish the present location of the target.

LOW-PRESSURE (LP) AIR— Pneumatic air pressure ranging up to 150 psi.

MACH NUMBER— The ratio of missile speed to the local speed of sound.

MAGAZINE AREA— The compartment, spaces, or passages on board ship containing magazine entrances that are intended to be used for the handling and passing of ammunition.

MAGAZINE— Any compartment, space, or locker that is used, or intended to be used, for the stowage of explosives or ammunition of any kind.

MAIN RELIEF VALVE— Protects the CAB unit from excessive pressure buildup and cavitation of the A-end.

MASTER REFERENCE PLANE (MRP)— The plane used as the machining reference to establish the foundation of the combat systems equipment. After initial construction, the MRP is only used as a reference plane following major damage or modernization.

MAXIMUM EFFECTIVE RANGE— The greatest distance at which a weapon maybe expected to fire accurately to inflict damage or casualties.

MAXIMUM RANGE— The greatest distance that the projectile will travel.

MCC— Main control console.

MEDIUM PRESSURE (MP) AIR— Pneumatic air pressure ranging from 151 to 1,000 psi.

MFCS— Missile fire control system.

MHE— Materials-handling equipment (industrial).

MODIFIED DOUBLE WEDGE— A supersonic fin shape that has relatively drag and is stronger.

MRC— Maintenance requirement cards.

NALC— Navy ammunition logistics code.

NEC— Navy enlisted classification code.

NEEW— The Net Equivalent Explosive Weight.

NPN— A transistor with the arrow that points away from the base.

NTDS— Naval tactical data system.

NWS— Naval Weapons Station.

OFFSET CENTER-LINE REFERENCE MARKS— Established during initial instruction to facilitate combat systems alignment. They are installed to prevent repeating center-line surveys during subsequent alignments.

OGIVE— The forward portion of a projectile.

OJT— On-the-job training.

ORDALTS— Authorized ordnance alterations.

ORTS— Operational readiness test system.

OSG— Order signal generator.

PA— System operating pressure ranging from 1,400 to 1,700 psi.

PC— Printed circuit card.

PDP— Power distribution panel.

PITCH— The turning rotation of a missile about its lateral axis.

PNP— A transistor with the arrow that points towards the base.

POWER OFF BRAKE— Stops the equipment movement during power failures, secures equipment movement against pitch and roll of the ship when system is inactive, provides for manual hand cranking during emergencies, installation, and maintenance.

PQS— Personnel qualification standards.

PREVENTIVE MAINTENANCE— The regular lubrication, inspection, and cleaning of equipment.

PRIMARY MAGAZINES— Ammunition stowage spaces, generally located below the main deck, and insofar as is practical, below the water-line.

PRIMERS— A device used to initiate the burning of a propellant charge by means of a flame.

PROPELLANTS— A device used to provide a pressure that, acting against an object to be propelled, will accelerate the object to the required velocity.

PRP— Pneumatically released pilot valve.

PYROTECHNIC— A device used for illumination, marking, and signaling.

Q-D— Quantity-Distance.

QUAL/CERT— Explosives-Handling Personnel Qualification Certification Program.

RANGE WIND— The wind that blows along the LOF, either with or against the projectile.

READY-SERVICE STOWAGE— Ammunition stowage facilities in the immediate vicinity of the weapon served.

READY-SERVICE MAGAZINES— Spaces physically convenient to the weapons they serve; they provide permanent stowage for part of the ammunition allowance.

RESERVOIRS— Used to dissipate heat, remove contamination, separate air, and store fluid in hydraulic systems.

RFI— Radio frequency interference.

RFI— Ready for issue.

ROLL— The rotation of a missile about the longitudinal axis.

ROTATING BAND— The circular band made of commercially pure copper, copper alloy, or plastic seated in a scored cut in the after portion of the projectile body.

RSR— Ready service rings.

SEPARATE-LOADING AMMUNITION— Ammunition that is gun sizes 8 inches and larger.

SEPARATED AMMUNITION— Ammunition that consists of two units-the projectile assembly and cartridge assembly.

SERVO PRESSURE— Hydraulic fluid pressure ranging from 400 to 500 psi.

SHIP BASE PLANE (SBP)— The basic plane of origin and is perpendicular to the CRP and includes the base line of the ship.

SIGHT DEFLECTION— The angle that the plane through the gun bore is deflected left or right from the LOS.

SIGHT ANGLE— The difference between the LOF and LOS and measured perpendicular to the trunnion axis.

SLIP RING— Provides a continuous electrical connection between the cabling of the stationary structure of the gun mount or launcher and a rotary joint for the cooling system piping.

SMALL ARMS— Any firearm with a caliber (cal.) of .60 inch or smaller and all shotguns.

SMS— Surface missile system.

STREAM— Standard tensioned replenishment alongside method.

SUPERCARGE PRESSURE— Hydraulic fluid pressure up to 150 psi.

SUSTAINED RATE OF FIRE— The average number of rounds fired per minute with the number of minutes this rate can be sustained without damage to the weapon.

TDD— Target detection device.

THRUST— The force that propels the missile forward at speeds sufficient to sustain flight.

USCG— United States Coast Guard.

VAC— Volts of alternating current.

VDC— Volts of direct current.

VERTREP— Vertical replenishment by helo to ship.

VISCOSITY— The measurement of internal resistance to flow of fluids.

VLA— Vertical launch asroc.

VLA— Vertical launching system.

WARHEAD— The payload of the missile.

WCS— Weapons control system.

WDS— Weapons direction system.

WEAPON CONTROL REFERENCE PLANE (WCRP)— This plane is established during initial construction and used during alignment verification.

YAW— The turning of a missile about the vertical axis.

APPENDIX II

REFERENCES USED TO DEVELOP THIS TRAMAN

NOTE

Although the following references were current when this TRAMAN was published, their continued currency cannot be assured. You, therefore, need to ensure that you are studying the latest revision.

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A

A-end, 4-21 to 4-24

Accumulators, 4-13 to 4-14

Actual GMLS power drives

- Mk 13 GMLS power drives, 4-51
- Mk 26 GMLS power drives, 4-51 to 4-56

Aegis weapons system, 10-8 to 10-9

Alignment principles

- alignment verification, 11-4
- bench mark, 11-5
- sequence of alignment, 11-1 to 11-4
- star checks, 11-5
- tram, 11-4

Ammunition

- ammunition classification, 2-1 to 2-3
- gun ammunition, 2-3
- lot/location card, 2-16
- lot numbers, 2-13
- projectiles, 2-3 to 2-6
- propelling charges, 2-6 to 2-9
- requisitions, 2-16
- serial/location card, 2-16
- stock record, 2-15
- transaction reports (ATR), 2-16, 13-16

Ammunition handling and safety

- ammunition safety, 2-39 to 2-42
- arrival conference, 2-31
- certification (Qual/Cert) program, 2-39
- electromagnetic radiation hazard, 2-42
- explosives-handling personnel qualification and handling equipment, 2-32 to 2-39
- inspection before accepting, 2-32
- loading/offloading plan, 2-31
- operating at night, 2-32
- quantity-distance (Q-D), 2-42

AN/SPY-1 radar system, 10-10

Automatic (thermopneumatic) control system, 2-26

Automatic and semiautomatic firing systems

- blowback operated, 3-4
- gas operated, 3-3

Automatic and semiautomatic firing systems–

- Continued
- range and rate of fire, 3-5
- recoil operated, 3-4
- small-arms operating principles, 3-3

Automatic gun, 25-MM M242, 3-45 to 3-47

B

B-end, 4-24 to 4-25

Barrel maintenance

- afterfiring care, 12-22 to 12-23
- gauging, 12-23
- preparation for firing, 12-22
- tools used, 12-21 to 12-22
- weekly maintenance, 12-23

Battery alignment

- mount alignment, 11-7
- shipboard alignment, 11-7
- shipyard alignment, 11-6
- system alignment, 11-7

Bearings, 4-7 to 4-9

Bench mark, 11-5

Black powder, 1-6

C

Cab type of power drives

- A-end, 4-21 to 4-24
- B-end, 4-24 to 4-25
- control assembly, 4-30
- dual gear pump assembly, 4-25 to 4-26
- main relief valve, 4-28 to 4-30
- power off brake, 4-26 to 4-28

Calibration and repair test/measuring equipment

- equipment calibration status, 13-22
- metrology automated system, 13-19
- test equipment calibration, 13-18

Cams, 4-1

Casualty report system (CASREP)

- casualty categories, 13-12
- correct CASREP, 13-11

- Casualty report system (CASREP)—Continued
 - message format, 13-13
 - types, 13-7
 - updates, 13-9
- Characteristics of explosive reactions, 1-2
- Circuit breakers, 5-10
- Circuit elements, 5-1
- Circuit failures
 - ground detection indicator, 5-26
 - types of circuit checks, 5-26
- Color coding, marking, and lettering, 2-14
- Combat systems readiness
 - combat systems readiness review (CSRR), 13-5
 - combat systems readiness test (CSRT), 13-5
- Combat systems readiness review (CSRR), 13-5
- Combat systems readiness test (CSRT), 13-5
- Common maintenance procedures
 - hydraulic -seal replacement, 12-31
 - mechanical adjustments, 12-32 to 12-34
 - types of seals, 12-31 to 12-32
- Control, 9-2
 - aerodynamic forces, 9-2 to 9-3
 - basic motions, 9-3 to 9-6
 - control surfaces, 9-6 to 9-8
 - gyroscopes, 9-4 to 9-6
- Control circuits
 - logic circuit, 5-15 to 5-18
 - transistorized control circuits, 5-14 to 5-15
- Conventional ammunition integrated management
 - system (CAIMS)
 - lot/location card, 2-16
 - requisitions, 2-16
 - serial/location card, 2-16
 - stock record, 2-15
 - transaction reports (ATR), 2-16
- Corrective maintenance management, 13-1 to 13-5
 - 3-M systems' central data bank, 13-1
 - current ship's maintenance project, 13-1
 - publication applicability list (PAL), 13-4
 - ships technical publications system (STEPS), 13-4
 - system logs and records, 13-1
 - technical library, 13-2
 - technical manual identification numbering
 - system (TMINS), 13-4

- Corrective maintenance management-Continued
 - technical manual management program (TMMP), 13-4
- Couplings, 4-4 to 4-7

D

- Damage control PMS, 12-34 to 12-35
- Detection process
 - electronic support measures, 10-2
 - naval tactical data system, 10-1
 - radar, 10-2
- Dry-type sprinkler systems, 8-30 to 8-36

E

- Electric motors, 5-54
- Electrical symbols and reference designations, 5-12 to 5-14
- Environmental control systems
 - air-conditioning and ventilation systems, 8-39 to 8-40
 - anti-icing systems, 8-38 to 8-39
- Explosives
 - characteristics of explosive reactions, 1-2
 - high and low explosives, 1-1 to 1-2
 - initiation of explosive reactions, 1-3 to 1-6
 - service, 1-3 to 1-6

F

- Final alignment and test, 11-9 to 11-11
- Fire control
 - computer, 10-4
 - director and radar, 10-4
 - stable element, 10-4
- Fire control problem
 - air, 10-6
 - ballistics, 10-5
 - drift, 10-7
 - earth rotation, 10-7
 - frames of reference, 10-7
 - gravity, 10-6
 - lead angles, 10-8
 - lines, 10-8

Fire control problem—Continued

parallax, 10-5

reference planes, 10-8

wind, 10-7

Fire control systems

aegis combat training system, 10-10

aegis display system, 10-10

aegis weapons system, 10-8 to 10-9

AN/SPY-1 radar system, 10-10

command and decision system, 10-10

ex-optical sight, 10-12

fire control system, 10-10

Mk 160 gun computer system, 10-11

Mk 34 gun weapon system, 10-11

Mk 86 gun fire control system, 10-12 to 10-14

Mk 92 control system, 10-15 to 10-16

operational readiness test system, 10-10

weapons control system, 10-10

Fire suppression systems

dry-type sprinkler systems, 8-30 to 8-36

magazine sprinkling systems, 8-36 to 8-37

typical carbon dioxide (CO₂) system, 8-22 to 8-27

typical water injection system, 8-27 to 8-30

Firing cutout mechanisms, 11-7 to 11-8

Firing equipment (general), 6-9 to 6-11

Fuses, 5-2,9-18 to 9-20

fuse types and functioning, 2-10 to 2-12

G

GMLS safety summary, 8-40 to 8-43

carbon dioxide (CO₂) hazard, 8-42

explosion hazard, 8-42

high-pressure air hazard, 8-42

high-pressure nitrogen hazard, 8-42

high-pressure water hazard, 8-42

high-voltage, 8-42

hydraulic fluid hazard, 8-42

hydraulic pressure hazard, 8-42

launcher area hazard, 8-42

live missile hazard, 8-42

moving equipment, 8-42

servicing, adjusting hazard, 8-42

specific safety precaution, 8-42

Grenade launchers

40-MM M203, 3-53 to 3-55

40-MM M79 grenade launcher, 3-48 to 3-50

Mk 19 Mod 3 machine gun, 3-50 to 3-53

Guidance

command guidance systems, 9-9 to 9-10

composite guidance systems, 9-11 to 9-12

homing guidance systems, 9-10 to 9-11

phases of guidance, 9-8 to 9-9

self-contained guidance systems, 9-12

Gun components

5"/54 Mk 45 Mod 0 gun mount power drive, 6-2 to 6-9

Mk 75 76MM positioning equipment, 6-9
positioning equipment, 6-1 to 6-9

Gun operation and misfire procedures, 6-23 to 6-24

Gun systems, 6-12 to 6-22

5"/54 Mk 45 gun, 6-13 to 6-18

76-MM Mk 75 gun, 6-18 to 6-22

Gyroscopes, 9-4 to 9-6

H

Hand grenades

procedures for throwing, 3-60

safety, 3-60

types and characteristics, 3-59

Handguns

.38-caliber revolver, 3-14 to 3-15

9-MM M9 semiautomatic pistol, 3-10 to 3-14

M1911A1 .45-caliber semiautomatic pistol, 3-5
to 3-10

High and low explosives, 1-1 to 1-2

Hydraulic machines

fluid characteristics, 4-9

hydraulic mechanisms, 4-16 to 4-17

system components, 4-10 to 4-16

Hydraulic-mechanical operation of a launcher component

center guide hydraulic components, 4-18

extend center guide operation, 4-19

retract center guide operation, 4-19

Hydraulic system

Mk 45, 5-inch 54, 4-45 to 4-51

Mk 75, M62, 76-MM, 4-31 to 4-44

- I**
- Identification of ammunition
 - ammunition lot numbers, 2-13
 - color coding, marking, and lettering, 2-14
 - Indicators lights, 5-1
- J**
- Jettisoning
 - functional description, 8-3 to 8-4, 8-6
 - Mk 13 Mod 4 GMLS jettison, 8-1 to 8-3
 - Mk 26 GMLS jettison, 8-4 to 8-6
- L**
- Landing-party equipment, 3-61 to 3-62
 - Levers and linkages, 4-4
 - Light antitank weapon system (LAW), 66-MM
 - M72, 3-55
 - Logic circuits, 5-15 to 5-18
 - Lubricants and corrosion control, 12-10 to 12-21
 - alternates and substitutes, 12-18
 - corrosion control, 12-19 to 12-21
 - fittings, 12-15 to 12-16
 - function of lubricants, 12-12
 - lubricating tools, 12-13 to 12-15
 - lubrication charts, 12-16 to 12-18
 - lubrication symbols, 12-18
 - qualities of lubricants, 12-10 and 12-12
 - specifications, 12-12 to 12-13
 - stowage of lubricants, 12-18 to 12-19
- M**
- M14 rifle, 3-16 to 3-20
 - M16A1 rifle, 3-20 to 3-25
 - M1911A1 .45-caliber pistol, 3-5 to 3-10
 - M60, 7.62-MM machine gun, 3-36 to 3-44
 - M72, 66-MM light antitank weapon system
 - (LAW), 3-55
 - Machine guns
 - .50-caliber browning machine gun, 3-34 to 3-36
 - 20-MM Mk 16 Mod 5 machine gun, 3-44 to 3-45
 - 25-MM M242 automatic gun, 3-45 to 3-47
 - 7.62-MM M60 machine gun, 3-36 to 3-44
 - Magazine alarms system, 2-30
 - Magazine sprinkler system
 - automatic (thermopneumatic) control system, 2-26
 - hydraulic control system, 2-24 to 2-26
 - magazine alarm system, 2-30
 - magazine sprinkler control valves, 2-23
 - Magazine sprinkling systems, 8-36 to 8-37
 - Magazine types, 2-18
 - Magazines
 - inspection of magazines, 2-20
 - magazine designation, 2-19
 - magazine security, 2-19
 - magazine types, 2-18
 - Main relief valve, 4-26 to 4-28
 - Main relief valve, 4-28 to 4-30
 - Maintenance tools
 - decoppering, 12-23
 - hand tools, 12-23
 - measuring tools and gauges, 12-24
 - nonsparking tools, 12-25
 - power tools, 12-23
 - pressure gauges, 12-26
 - rules applicable to repair tools before a job, 12-25 to 12-26
 - special tools, 12-25
 - torque wrenches, 12-24 to 12-25
 - Mechanical devices
 - bearings, 4-7 to 4-9
 - cams, 4-1
 - couplings, 4-4 to 4-7
 - gear trains, 4-2 to 4-4
 - levers and linkages, 4-4
 - Missile handling
 - containers, canisters, and handling equipment, 2-45 to 2-63
 - replenishment methods, 2-63 to 2-67
 - weapons station processing, 2-43 to 2-44
 - Missiles aboard ship
 - cleaning and preservation, 2-69
 - handling, 2-67
 - inspections, 2-68
 - stowage, 2-68
 - M9, 9-MM pistol, semiautomatic, 3-10 to 3-14

Mk 13 Mod 4 and 7 GMLS

- base ring, 7-10

- capabilities, 7-2 to 7-4

- carriage, 7-8 to 7-10

- harpoon warm-up power, 7-17

- hoist assembly, 7-15

- launcher guide, 7-4 to 7-8

- launching system control, 7-17 to 7-21

- magazine, 7-10 to 7-16

Mk 13 Mod 4 GMLS, 7-4 to 7-16

Mk 160 gun computer system, 10-11

Mk 26 GMLS and Mods

- auxiliary equipment, 7-41 to 7-42

- launcher, 7-32 to 7-34

- launcher hydraulic systems, 7-34

- launching system control, 7-35 to 7-41

- magazine, 7-24 to 7-32

- purpose and capabilities, 7-22 to 7-24

Mk 26 GMLS and Mods, 7-22 to 7-41

Mk 34 gun weapon system, 10-11

Mk 41 vertical launching system (VLS)

- 5-cell strikedown module, 7-48 to 7-50

- description and capabilities, 7-43 to 7-46

- fault processing, 7-50

- gas management system, 7-50

- launcher control units (LCU), 7-46

- launcher support equipment, 7-50

- power distribution, 7-50

- remote launch enable panel (RLEP), 7-46

- status panel, 7-46

- vertical launchers, 7-47 to 7-48

Mk 41 vertical launching system, 7-43 to 7-50

Mk 45 gun mount control system, 5-59 to 5-83

Mk 45, 5-inch 54 gun, 6-13 to 6-18

Mk 45, 5-inch 54 hydraulic system, 4-45 to 4-51

Mk 75 gun mount control system

- anti-icing system, 5-44 to 5-47

- auxiliary systems, 5-48 to 5-51

- barrel cooling control panel, 5-43 to 5-44

- gun control panel (GCP), 5-27 to 5-43

- slip ring assembly, 5-48

Mk 75 gun, 76-MM, 6-18 to 6-22

Mk 75 train and elevation system, 5-51 to 5-59

Mk 86 gun fire control system, 10-12 to 10-14

Mk 87 line-throwing adapter kit, 3-30 to 3-33

Mk 87 Mod 1 line-throwing rifle adapter kit, 3-30
to 3-33

- canister, 3-31

- chemical light wand, 3-31

- grenade cartridges, 3-32

- launcher, 3-30

- maintenance, 3-33

- preparation for firing, 3-33

- projectile, 3-30

- recoil pad, 3-32

- shotline, 3-33

Mk 92 control system, 10-15 to 10-16

Mortar, 88-MM, 3-56

Mossberg M500 shotgun, 3-30

Multibase powder, 1-7

N

Nitrocellulose (NC), 1-6

O

Ordnance drawings

- hydraulic diagrams, 12-30

- illustrated parts breakdown, 12-29 to 12-30

- parts numbers, 12-30

- types of drawings, 12-28 to 12-29

Ordnance management system, 13-14 to 13-17

- ammunition transaction reporting, 13-16

- CAIMS reporting, 13-14

- item tracking, 13-17

- SPCCINST P8010.12, 13-15

Ordnance safety, 1-22 to 1-23

P

Payloads (warheads), 9-17

Physical security of classified material, 13-25 to
13-28

- care during working hours, 13-26

- care of working spaces, 13-26

- custodians, 13-25

- destruction of classified material, 13-28

- reproduction of classified material, 13-27

- securing classified material, 13-26

- storage of classified material, 13-26

Pistol, 9-MM M9 semiautomatic, 3-10 to 3-14

PMS management

shipboard evaluation of PMS, 12-35

type commander evaluation of PMS, 12-36

Power drives and control circuit components, 5-1 to 5-14

circuit breakers, 5-10

circuit elements, 5-1

electrical symbols and reference designations, 5-12 to 5-14

fuses, 5-2

indicator lights, 5-1

relays, 5-7 to 5-10

solenoids, 5-10 to 5-12

switches, 5-2 to 5-7

Power off brake, 4-26 to 4-28

Prefire requirements (general), 6-11 to 6-12

Preventive and corrective maintenance, 12-2 to 12-11

corrective maintenance, 12-2 to 12-3

maintenance by ship's force, tender and navy yard, 12-4

maintenance planning, 12-3

maintenance skills, 12-3

overhaul maintenance requirements, 12-9 and 12-11

overhaul work packages, 12-4 to 12-6

phased maintenance program, 12-7 to 12-9

plan maintenance schedules, 12-3

preventive maintenance, 12-1 to 12-2

ship's force overhaul management system, 12-6 to 12-7

system preventive maintenance, 12-3

Projectiles types, 2-3 to 2-6

Propelling charges, 2-6 to 2-9

Propulsion, 9-12

acceleration, 9-16

math numbers and speed, 9-16

reaction propulsion, 9-13

solid-fuel rocket motors, 9-14 to 9-16

turbojet engines, 9-13

Pyrotechnics

distress and hand signals, 1-17

marine illumination and smoke signals, 1-11

pistols, 1-14

Pyrotechnics-Continued

pyrotechnic marine location markers, 1-11

pyrotechnic safety handling and stowage, 1-21

Q

Quality assurance

calibration of test and measuring equipment, 12-38

organization and responsibilities, 12-37

quality deficiency reporting, 12-38

R

Radar alignment, 11-8 to 11-9

Relays, 5-7 to 5-10

Remington M870 shotgun, 3-25 to 3-30

Replenishment methods, 2-63 to 2-67

Revolver, .38-caliber, 3-14 to 3-15

S

Safe and arm device, 9-20

Safety

air systems, 4-58

high-pressure safety rules, 4-57

hydraulic fluid precautions, 4-58

personnel safety precautions, 4-58

Safety, 12-38 to 12-41

Service explosives, 1-6 to 1-8

black powder, 1-6

booster explosives, 1-8

main-charge (burst) explosives, 1-8

Multibase powder, 1-7

nitrocellulose, 1-6

primary (initiating) explosives, 1-8

single-base powder, 1-7

smokeless powder, 1-7

Ship's power and distribution, 5-88 to 5-90

Shipboard ammunition inspection, 2-17

Shotguns

Mossberg M500 shotgun, 3-30

Remington M870 shotgun, 3-25 to 3-30

Shoulder weapons

M14 rifle, 3-16 to 3-20

M16A1 rifle, 3-20 to 3-25

- Single-base powder, 1-7
- Small-arms fundamentals
 - cycles of operation, 3-1 to 3-3
 - small-arms nomenclature, 3-1
- Small-arms maintenance, 3-58
- Small-arms range duties, 3-59
- Smokeless powder, 1-7
- SMS guided missiles, 9-20 to 9-24
- Solenoids, 5-10 to 5-12
- Solid-fuel rocket motors, 9-14 to 9-16
- Solid-state control circuit operation, 5-83 to 5-88
- Sources of maintenance information
 - ordnance publications, 12-26 to 12-27
- Special precautions for small arms, 3-58
- Star checks, 11-5
- Stowage and issue of small arms, 3-58
- Strikedown, 8-7 to 8-22
 - Mk 13 Mod 4 GMLS strikedown, 8-7 to 8-10
 - Mk 26 GMLS strikedown/intertransfer, 8-10 to 8-15
 - Mk 41 vertical launching system, 8-16 to 8-22
- Structure of a missile, 9-1 to 9-2
- Support weapons
 - 40-MM M203 grenade launcher, 3-53 to 3-55
 - 66-MM M72 series light antitank weapon (LAW) system, 3-55
 - 88-MM mortar, 3-56
- Switches, 5-2 to 5-7
- Synchro circuits, 5-18 to 5-25
 - advantages of synchros, 5-18
 - basic principles of synchros, 5-20 to 5-22
 - classification of synchros, 5-19
 - electrical zero, 5-23
 - maintaining and troubleshooting synchro systems, 5-24 to 5-25
 - purpose of synchros, 5-18
 - synchro system, 5-23
 - synchros symbols, 5-19

T

- Technical manual identification numbering system (TMINS), 13-4

- Technical manual management program (TMMP), 13-4

- Torque wrenches, 12-24 to 12-25

Training

- assist visits, 13-29
- formal training, 13-28
- GMT, 13-29
- informal training, 13-29
- management of training, 13-31
- OJT, 13-29
- planning board for training, 13-31
- PQS, 13-30
- records, 13-36 to 13-39
- Training missiles, 10-23 to 10-26
 - general purposes, 10-23
 - inspections, 10-25
 - servicing, 10-26
 - standard GMTR, 10-23 to 10-25

Training plans

- long-range plan, 13-32
- monthly training plan, 13-35
- quarterly-plan, 13-32
- short-range plan, 13-32
- weekly training plan, 13-35

- Tram, 11-4

- Transistorized circuits, 5-14 to 5-15

- Turbojet engines, 9-13

- Typical carbon dioxide (CO₂) system, 8-22 to 8-27

- Typical water injection system, 8-27 to 8-30

W

Warheads

- fuzes, 9-18 to 9-20
- payloads, 9-17

- safe and arm device, 9-20

- Weapons direction systems, 10-2 to 10-3

Weapons system maintenance

- daily system operability test, 10-21 to 10-22
- OCSOT, 10-22
- system testing, 10-17
- testing requirements, 10-17 to 10-21

